

Pro Rec, February 2000 PreSonus VXP



By Rip Rowan

PreSonus has been the surprise of the audio industry since the company first popped up on the radar screen a few years ago. The company's 2 and 8 channel mic preamps have received excellent press, and their unique (if slightly simplistic) Blue Max compressor is both innovative and good-sounding.

I was therefore excited to review the VXP voice processor. The VXP is a feature-packed preamp offering a mic preamp, harmonic saturator, noise-reducing downward expander, de-esser, four-band parametric EQ, and peak limiter in a single unit. There's a lot to describe about this unit so let's do a quick run-down of the features.

Features

The mic preamp is simple and straightforward. If you're familiar with PreSonus' other preamps then you're already familiar with the preamp in the VXP. The preamp offers a gain knob, phantom power, and -20 dB pad. A harmonic saturator "IDSS" control adds harmonics into the signal, making the sound thicker, warmer, and darker. The preamp is metered by an accurate 8-step LED.

The compressor is equally simple. Patterned after the Blue Max, the compressor has a single control that goes from "light" to "heavy" and an input and output control. That's it. No attack, release, ratio or threshold. An 8-step LED meters the compressor's gain reduction and an in/out switch can be used to take the compressor out of the signal path.

The downward expander is also simple. A threshold knob allows you to set the level at which quiet sounds are attenuated, and a ratio knob controls the amount of attenuation. A 4-step LED meters the gain reduction below the threshold.

The de-esser offers a threshold and frequency control. Just find the offending frequency, and set the threshold for the gain reduction you want. A 4-step LED meters the output level reduction.

The EQ is full-featured and flexible. There is a 100 Hz low shelf bass control, two swept midrange controls, and a 12KHz shelf treble control. An 80 Hz low-cut is provided to reduce rumble. PreSonus has provided each of the midrange knobs with a Q (width) control that allows them to function with either a gentle bell-shaped curve or a narrow notch-shaped curve. This feature allows you to use the EQ for either tonal shaping or frequency surgery.

On the far right side of the unit is a peak limiter and a master output control. The master output is metered by another 8-step LED.

The expected mic input and line outputs are provided on the back of the unit. Both XLR and balanced $\frac{1}{4}$ " outputs are offered. The unit also has an insert point provided between the preamp and the compressor to allow you to record the dry sound and monitor the effected sound; and a post-preamp return is provided for mixing through the "effects" on the unit. Sadly, no instrument jack is provided, so you'll have to use a direct box if you want to plug an instrument into the VXP.

I have my usual compliments and complaints about the front panel. The blue panel with white labels is sexy and readable. The unit is well-metered, and the large red power light commands attention. This unit is an eye-catcher. As I've explained in the past, I don't buy equipment because it's sexy. However, it's great to own sexy gear. When people come in to work in the studio, it's useful to have a few "gee-whiz" pieces of gear to make them think that they're getting their money worth. Sad to say, it can keep people coming back for more.

This unit makes extensive use of nested knobs (two controls on a single knob). Sometimes these nested knobs don't bother me too much, but on the VXP they were a real pain. The knobs are a little too close together, making it hard to get my fingers around the knob's inner sleeve. I think a person with large, thick fingers would find these knobs very frustrating. Also, I discovered that with many of the knobs, turning the inside sleeve would cause the outer control to turn as well. More thought should have gone into these knobs.

I would also prefer a slightly different signal path. I would have liked the downward expander to be placed before the compressor, rather than after it. When using a noise gate, I want to see the entire dynamic range of the signal. That way the expander "sees" the largest possible difference between the quiet and loud passages. If I use a lot of compression, then I've already boosted the quiet parts and attenuated the loudest parts, and the expander is more likely to attenuate something I want to keep.

Similarly, I would prefer the de-esser after the EQ. This is probably a very personal preference. When working with vocals, I generally ignore sibilants until the very end. First, I want to compress the vocals until they have the right dynamics and are sitting

nicely in the track. Then I want to EQ the vocals until I'm hearing the right texture and sheen. Finally, after compressing and EQing the vocals, the sibilants might be a little harsh, so then I'll de-ess them if needed.

Performance

I used the VXP with several different mics and singers. I soon discovered that the VXP was "allergic" to my transformer-balanced Crown CM700s. I got a decent dose of hum when I used these mics with the VXP. The other mics I used (all transformerless) were dead-quiet when used with the VXP. I discussed the issue with Jim Wray of PreSonus, who informed me that they had been able to resolve the noise issue with a couple other transformer-coupled microphones. If your favorite mic is transformer balanced, you might want to test it before matching it to a VXP. Note that most high-end vocal mics these days are transformerless and will pose no issue with the VXP.

PreSonus has called the VXP a "voice processor" - a label I think unfairly shoehorns this unit into a narrow category. After using the VXP with several singers and mics I came to appreciate how truly versatile and functional this unit is. The preamp is very linear and quiet, and provides plenty of gain to get the job done. With the "effects" switched out of the signal path, the VXP is basically a single-channel MP20. The sound is clean, transparent, slightly airy and fluffy, and has great transient response.

I had serious doubts about the "IDSS" circuit. This circuit adds harmonic distortion into the signal. The goal, of course, is to help get a "warm" sound. The IDSS is definitely capable of adding warmth to the sound. The IDSS control adds mids and creates a slightly "limited" sound. As the control is turned up further, the high end rolls off dramatically, creating a rather muddy, "covered-up" sound. A little bit goes a long way. It's definitely an "effect" at high levels. However I found that just little IDSS does add a nice thickness and roundness to "sterile" sounds. It definitely does not sound like a tube preamp, but it's useful from time to time and it can give a sterile, overly clean mic a little character.

I also had serious doubts about a "one knob" compressor. I'm kind of a compressor freak, and a "one knob" compressor is not my idea of great compressor design.

Well, after using the compressor for a while, I am still not a fan of the one-knob compressor, though I have to admit that it sounds better and is more functional than I expected. The "light" settings proved to be quite useful for tracking applications where I just wanted to ride the loud passages slightly. The "Medium" settings were applicable to mixing applications where I wanted to apply heavier compression to get a track to sit on top of a mix. And the "Heavy" settings were good presets for a strong, effected compression sound. It's not my idea of a great compressor, but for tracking use, it's easy to set up and use and is very capable of transparent, gentle compression.

The VXP's noise reducing downward expander is, in a word, excellent. I found it to be very easy to use, and every time I used it I could get a lot of noise reduction without introducing those nasty noise-gate artifacts into the signal. This thing is unusually fast and smooth. I usually refuse to track with any kind of gate (except on drums) because I don't want to screw up the track. With the VXP I found myself using the expander on pretty much everything. If you find yourself struggling to reduce the noise and improve the clarity and focus of your quiet passages, the VXP's expander may become your secret weapon.

The de-esser is simple, easy to use, and it works. I prefer true sidechain de-essing (where I have parametric control over the frequencies I'm de-essing). I found that the width of the VXP's de-esser was a little narrow: when using a lot of de-essing, the high-end sounded slightly notched, not smooth. However, I would rarely (if ever) de-ess while recording, so shortcomings in the VXP's de-esser are relatively unimportant to me.

The EQ section of the VXP is flexible and powerful. I found that when using the bass control to add bass, the sound doesn't get particularly "fat" or "round" even though it gets quite bassy. This might be a result of the (rather high) 100 Hz shelf or a lack of headroom in the LF circuit. I would probably prefer a 70 or 80 Hz shelf. Otherwise I like the sound of the EQ. In particular, the high shelf is nice and glassy and the low-mid is warm and thick. I also like the notch controls that let you use the EQ to do precision cuts.

I also appreciate the inclusion of a peak limiter on the output. The peak limiter is before the output control, allowing you to limit hard and make up to get a "crushed" sound. Or, for digital safety, set the output control and limiter to around +3, and you can safely track as hot as you want. Of course there's no such thing as a truly invisible peak limiter, but when I track digitally with a limiter I can always get more tone, and track with more confidence. However, I would have really liked even one light to indicate that the limit had been hit.

Conclusion

As I continued to use the VXP over a period of weeks, the word I kept applying to it was "flexible." The VXP preamp is capable of sounds from transparent to colored. The compressor is capable of being very invisible and out of the way, or really squashing the snot out of a track. The expander and de-esser are practical and convenient. And the EQ is flexible, if not overly musical. The VXP's flexibility allows it to be safely used on more tracks without the fear of printing the same sonic stamp on everything.

The VXP also manages to pack a lot of functionality into a remarkably simple package. After all, we're talking about a mic preamp + compressor + noise gate +

de-esser + parametric EQ + peak limiter in a package with only 12 knobs. It could easily have had 24 knobs. I like being able to plug in a mic and have the VXP ready to record in a matter of seconds. It's really easy to set up and go.

The PreSonus VXP is a Swiss Army Knife among preamps. If had to produce a CD with only one preamp, the VXP would be my choice. Like the Swiss Army Knife, it's not the very best at everything, but it's pretty damned good at a lot of stuff. If you're looking to buy a new preamp / processor, be sure to take a good look at the PreSonus VXP.